

Joseph F. Bischoff
 APHIS National Mycologist
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Professional interests

Mycology, systematics, taxonomy, plant pathology, and biogeography.

Education

Rutgers University, New Brunswick, New Jersey	Ph.D. (mycology)	09/99-05/04
Dissertation Title: Clavicipitalean Systematics: an evaluation of anamorphic states and their utility in determining monophyletic groups in the family		
Organization for Tropical Biology through the University of Costa Rica, San Jose, Costa Rica		06/01-08/01
Summer Course: Tropical Biology: an ecological approach (OTS 01-3)		
Rutgers University, New Brunswick, New Jersey	B.S. (forestry)	09/92-05/96

Professional experience

APHIS National Mycologist, United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ), National Inspection Service (NIS)	05/08-present
Visiting Scientist, Systematic Mycology and Microbiology, Agricultural Research Service, United States Department of Agriculture (USDA)	08/04-05/08
Fungal Taxonomist and Curator of GenBank, National Center for Biotechnology Information (NCBI), National Institutes of Health (NIH)	06/04-05/08
Assistant Curator, Chrysler Herbarium (CHRB), Rutgers University	07/02-05/04
Teaching Assistant, General Biology, Department of Life Sciences, Rutgers University	09/01-05/02
Graduate Research Assistant, Aeromycology Project, Department of Plant Pathology, Rutgers University.	07/00-08/01
Teaching Assistant, Forestry Field Course, Department of Ecology and Evolution, Rutgers University.	01/00-06/00
Consulting Arborist, Tree Tech Inc., Mount Freedom, NJ.	01/98-02/00

Peer-reviewed publications and book chapters

- Roberts RG, Reymond ST, Bischoff JF. 2011. Differential gene expression in *Alternaria gaisen* exposed to dark and light. *Mycological Progress* (in press).
- Evans HC, Groden E, Bischoff JF. 2010. New fungal pathogens of the red ant, *Myrmica rubru*, from the UK and implications for ant invasions in the USA. *Fungal Biology* 114: 451-466.
- Gregory N, Bischoff JF, Dixon L, Ciurlino R. 2010. First Report of the Telial stage of Japanese apple rust on *Juniperus chinensis* in North America and Confirmation of the Aecial Stage on *Malus domestica*. *Plant Disease* 94:1169.
- Bischoff JF, Rehner SA, Humber RA. 2009. A multilocus phylogeny of the *Metarhizium anisopliae* lineage. *Mycologia* 101: 508-526.
- Johnson D, Sung GH, Hywel-Jones NL, Luangsa-Ard JJ, Bischoff JF, Kepler RM, Spatafora JW. 2009. Systematics and evolution of the genus *Torrubiella* (Hypocreales, Ascomycota). *Mycological Research* 113:279-289.
- Hibbett DS, Binder M, Bischoff JF, ... (64 other authors). 2007. A higher-level phylogenetic classification of Fungi. *Mycological Research* 111: 509-547.
- Torres MS, White JF Jr, Bischoff JF. 2007. *Hypocrella panamensis* sp. nov. (Clavicipitaceae, Hypocreales) a new species infecting scale insects on *Piper carilloanum* in Panama. *Mycological Research* 111: 317-323.
- Rehner SA, De Muro MA, Bischoff JF. 2006. Description and phylogenetic placement of *Beauveria malawiensis* sp. nov. (Cordycipitaceae, Hypocreales). *Mycotaxon* 98: 137-145.
- Bischoff JF, Rehner SA, Humber RA. 2006. *Metarhizium frigidum* sp. nov.: a cryptic species of *M. anisopliae* and a member of the *M. flavoviride* complex. *Mycologia* 98: 737-745.
- LaPolla JS, Schultz TR, Kjer KM, Bischoff JF. 2006. Phylogenetic position of the ant genus *Acropyga* Roger (Hymenoptera: Formicidae) and the evolution of trophophoresy. *Insect Systematics and Evolution* 37: 197-212.
- Bischoff JF, White JF Jr. 2005. Evolutionary development of the Clavicipitaceae, pp. 505-518. In: JF White, Jr., J Dighton, P Oudemans (Eds.). *The Fungal Community: its organization and role in the ecosystem*. 3rd Edition. Taylor & Francis, Boca Raton, FL.
- Van Bael SA, Maynard Z, Robbins N, Bischoff JF, Arnold AE, Rojas E, Mejia LC, Kyllo DA, Herre EA. 2005. Emerging perspectives on the ecological roles of endophytic fungi in tropical plants, pp. 181-191. In: JF White, Jr., J Dighton, P Oudemans (Eds.). *The Fungal Community: its organization and role in the ecosystem*. 3rd Edition. Taylor & Francis, Boca Raton, FL.
- Chaverri P, Bischoff JF, Evans HC, Hodge KT. 2005. *Regiocrella*, a new entomopathogenic genus with a pycnidial anamorph and its phylogenetic placement in the Clavicipitaceae. *Mycologia* 97: 1225-1237.
- Bischoff JF, Chaverri P, White JF Jr. 2005. Clarification of the host substrate of *Ascopolyporus* and description of *Ascopolyporus philodendrus* sp. nov. *Mycologia* 97: 710-717.
- Herre EA, Van Bael SA, Maynard Z, Robbins N, Bischoff JF, Arnold AE, Rojas AEE, Mejia LC, Cordero RA, Woodward C, Kyllo DA. 2005. Tropical plants as chimera: some implications of

- foliar endophytic fungi for the study of host plant defense, physiology, and genetics, pp. 226-240. In: DFRP Burslem, MA Pinard, SE Hartley (Eds.). *Interactions in the Tropics*. Cambridge University Press, Cambridge, UK.
- Torres MS, White JF Jr, Bischoff JF. 2005. *Cordyceps spegazzinii* sp. nov., a new species of the *C. militaris* group. *Mycotaxon* 94: 253-263.
- Bischoff JF. 2005. *Stilbella iwkramensis* (Ascomycotina, Hypocreales) a new entomopathogenic species from Guyana, *Proceedings of the Academy of Natural Sciences of Philadelphia* 154: 109-111.
- Chaverri P, Bischoff JF, Liu M, Hodge KT. 2005. A new species of *Hypocrella*, *H. macrostroma*, and its phylogenetic relationships to other species with large stromata. *Mycological Research* 109: 1268-1275.
- Torres MS, White JF Jr., Cazares G, Bergen M, Bischoff JF, Sullivan RF. 2005. A new species and its phylogenetic placement in the *Didymella/Phoma* complex (Phaeosphaeriaceae, Pleosporales). *Mycotaxon* 93: 297-308.
- Torres MS, Bergen M, Singh S, Bischoff JF, Sullivan RF, White JF Jr. 2005. *Plenodomus morganjonesii* sp. nov. and a discussion of the genus *Plenodomus*. *Mycotaxon* 93: 333-343.
- Bischoff JF, White JF Jr. 2004. *Torrubiella piperis* sp. nov. (Clavicipitaceae, Hypocreales), a new teleomorph of the *Lecanicillium* complex. *Studies in Mycology* 50: 89-94.
- Koroch A, Juliani H, Bischoff JF, Lewis E, Bills G, Simon J, White JF Jr. 2004. Examination of plant biotrophy in the scale insect parasitizing fungus *Dussiella tuberiformis*. *Symbiosis* 37: 267-280.
- Bischoff JF, Sullivan R, Kjer K, White JF Jr. 2004. The tribe Ustilaginoideae (Clavicipitaceae, Hypocreales): an evaluation of its morphology and phylogenetic affinity. *Mycologia* 96:1086-1092.
- Bischoff JF, White JF Jr. 2003. The plant-infecting clavicipitaleans. In: *Clavicipitalean fungi: evolution biology, chemistry, and biocontrol*. JF White Jr., C Bacon, NL Hywel-Jones (Eds.), Markel - Dekker, NY, NY.
- Bischoff JF, Sullivan R, Hywel-Jones NL, Struwe L, White JF Jr. 2003. Resurrection of *Blistum tomentosum* and its exclusion from *Polycephalomyces* (Hyphomycetes, Deuteromycota) based on 28S rDNA sequence data. *Mycotaxon* 86: 433-444.
- White JF Jr., Belanger F, Meyer W, Sullivan RF, Bischoff JF, Lewis EA. 2002. Clavicipitalean fungal epibionts and endophytes – development of symbiotic interactions with plants. *Symbiosis* 33: 201-213.

Presentations

- Bischoff JF. 2011. Maintaining a Balance: The role of APHIS in preventing the introduction of potential invasive plant pathogens while facilitating global trade and commerce. Twentieth Anniversary Turfgrass Symposium, Rutgers University, New Brunswick, New Jersey [invited speaker].

- Bischoff JF. 2010. Plant Pathogens: An Identity Crisis. Invasive Terrestrial, Animals, and Pathogens (ITAP) Meeting, Washington, District of Columbia [invited speaker].
- Bischoff JF. 2009. M&M's of Mycology: Using Morphological and Molecular diagnostics in applied fungal taxonomy. Clemson University, Clemson, South Carolina [invited speaker].
- Bischoff JF. 2009. Dropping Like Flies: Fungal insect pathogens of the order Hypocreales (Ascomycota). Washington Entomological Society, Washington, District of Columbia [invited speaker].
- Gregory NF, Bischoff JF, Floyd JP. 2009. Japanese apple rust confirmed in Eastern United States in 2009. National Plant Diagnostics Network Meeting, Miami, Florida [poster].
- Bischoff JF. 2009. Dropping Like Flies: Fungal insect pathogens of the order Hypocreales (Ascomycota). Maryland Entomological Society, Baltimore, Maryland [invited speaker].
- Rehner SA, Bischoff JF, Humber RA. 2008. Web-based molecular phylogenetic identification resources for *Beauveria* and *Metarhizium*. Fungal Division Workshop, Society of Invertebrate Pathology, University of Warwick, Coventry, United Kingdom.
- Bischoff JF. 2006. A molecular and morphological approach to the systematics of *Metarhizium*. Cornell University, Ithaca, New York [invited speaker].
- Bischoff JF. 2006. The current state of fungal taxonomy and overcoming historical pitfalls National Center for Biotechnology Information, Information Engineering Branch, Bethesda, Maryland [invited speaker].
- Bischoff JF. 2005. GenBank and its role in fungal taxonomy. Deep Hypha Meeting, University of Arizona, Tucson, Arizona [invited speaker].
- Bischoff JF. 2005. Systematics and Mycology. Johns Hopkins University, Baltimore, Maryland [lecture].
- Bischoff JF, Rehner SA, Humber RA. 2005. A multilocus phylogenetic analysis of the entomopathogenic form genus *Metarhizium*. Mycological Society of America (MSA) Annual Meeting, Hilo, HI, [abstact and lecture].
- Bischoff JF. 2004. The importance of connecting anamorphs and teleomorphs. Columbia University, New York, New York [lecture].
- Bischoff JF. 2003. Conidial states and their role in determining monophyly in Clavicipitaceae (Hypocreales). Cacao Endophyte Working Group, Rutgers University, New Brunswick, New Jersey [invited speaker].
- Bischoff JF. 2003. Recent fungal collections from Central & South America. Student Seminar Series, Department of Ecology and Evolution, Rutgers University, New Brunswick, New Jersey [invited speaker].
- Bischoff JF, White JF Jr. 2003. Evaluation of anamorphic states in Clavicipitaceae (Hypocreales) and their use in determining monophyly within the family. Mycological Society of America (MSA) Annual Meeting, Carmel, CA [abstract and lecture].
- Bischoff JF, White JF Jr., Struwe L. 2003. Molecular support for the monophyly of the fungal plant pathogens *Ustilaginoidea* and *Munkia* and corroboration of their placement in Clavicipitaceae.

- Northeastern Ecology and Evolution Conference (NEEC), Rutgers University, New Brunswick, New Jersey [poster].
- Bischoff JF. 2002. A brief look at the host and morphological diversity of the fungal family Clavicipitaceae (Hypocreales, Ascomycota). Brown Bag Series, University of Connecticut, Storrs, Connecticut [invited speaker].
- Bischoff JF. 2002. Introduction of modern mycology. La Selva Biological Station, Costa Rica [invited speaker].
- Bischoff JF, White JF Jr. 2002. Preliminary study regarding the phylogenetic relationship between the clavicipitalean form genera *Munkia* and *Ustilaginoidea*. Mid-Atlantic Mycological Society of America (MAMSA) Annual Meeting, United States Department of Agriculture, Beltsville, Maryland [poster].
- Bischoff JF. 2001. Tropical Biology: a summer with the Organization for Tropical Studies. . Student Seminar Series, Department of Ecology and Evolution, Rutgers University, New Brunswick, New Jersey [invited speaker].
- Bischoff JF, Sullivan R, White JF Jr., Hywel-Jones NL. 2001. Phylogenetic evidence for the monophyly of particular entomogenous *Cordyceps* and the form genus *Polycephalomyces*. Mycological Society of America (MSA) Annual Meeting, Salt Lake City, Utah [poster].
- Professional service**
- | | |
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| Federal Interagency Committee on Invasive Terrestrial Animals and Pathogens (ITAP), Plant Pathology Subcommittee | 2009-present |
| Mycological Society of America Representative to the Natural Sciences Collections Alliance. | 2009-2012 |
| Member, Mycological Society of America Culture Collection Committee. | 2008-2012 |
| Mycological Society of America Representative to the American Institute of Biological Sciences | 2010-2013 |
| Mycological Society of America Representative to the American Association for the Advancement of Science (AAAS). | 2007-2010 |
| Committee Member, Special Committee on the Nomenclature of Fungi with a Pleomorphic Life Cycle. | 2006-2009 |
| Panel Member, National Academy of Sciences, USAID. | 2006 |
| Panel Member, Network of Conservation Educators and Practitioners Module, American Museum of Natural History. | 2006 |
| Peer Reviewer, National Science Foundation. | 2005-2009 |
| Resource Person, Introduction to Tropical Biology | 2002 |

Course, Organization for Tropical Studies,
La Selva, Costa Rica.

Memberships

American Phytopathological Society
Mycological Society of America
New Jersey Certified Tree Expert (License #394)